DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

Bay Area Branch
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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 99.28

WELDING INSPECTION REPORT

Resident Engineer: Casey, William
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-026545
Date Inspected: 17-Oct-2011

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: American Bridge/Fluor Enterprises, a JV

OSM Arrival Time: 600
OSM Departure Time: 1630
Location: Job Site

CWI Name: See Below

Inspected CWI report:	☐ Yes	☑ No	☐ N/A	**CWI Present:**	☑ Yes	☐ No	
Electrode to specification:	☑ Yes	☐ No	☐ N/A	**Rod Oven in Use:**	☑ Yes	☐ No	☐ N/A
Qualified Welders:	☑ Yes	☐ No	☐ N/A	**Weld Procedures Followed:**	☑ Yes	☐ No	☐ N/A
Approved Drawings:	☑ Yes	☐ No	☐ N/A	**Verified Joint Fit-up:**	☑ Yes	☐ No	☐ N/A
				Approved WPS:	☑ Yes	☐ No	☐ N/A
				Delayed / Cancelled:	☐ Yes	☑ No	☐ N/A

Bridge No: 34-0006
Component: OBG and Tower

Summary of Items Observed:

At the start of the shift the Quality Assurance Inspector (QAI) traveled to the SAS project site and observed the work and the inspection performed by American Bridge/Fluor Enterprises (AB/F) personnel. The inspection was performed as noted below:

A). OBG W12/W13
FW Spencer (Piping Systems)
QAI: Doug Frey

1). The QAI, Doug Frey, was assigned to this designated work station to observe the Complete Joint Penetration (CJP) welding, the QC inspection and other related work of the field splice identified as 12W-13W-E. The welding was performed by Richard Garcia ID-5892 utilizing the Flux Cored Arc Welding w/gas (FCAW-G) process identified as ABF-WPS-D15-3040B-1, Rev.0. The QC inspector William Sherwood performed the inspection and verifying the welding parameters utilizing the WPS as a reference. No issues were noted by the QC inspector. The welding was perfomed at this work station was not completed during this shift on this date

2). The QAI also observed the Complete Joint Penetration (CJP) groove welding of the field splice identified as 12W-13W-F. The welding was performed by Fred Kaddu ID- 2188 utilizing the Flux Cored Arc Welding w/gas (FCAW-G) as per the Welding Procedure Specification (WPS) ABF-WPS-D15-3040B-3, Rev. 0.

3). The QAI also observed the QC inspector, William Sherwood, perform the fit-up inspection of the field splice weld joint identified 12W-13W-C1 and C2. At the conclusion of the inspection Mr. Sherwood noted three areas of the C2 segment that did not comply with the contract specifications. See QALI Summary on page 3 of this report for additional information in regards to resolution of this issue.

4). The QAI, Doug Frey, also observed the continued welding and the QC inspection of the piping systems identified as the compressed air and domestic water. The CJP welding was performed by Curtis Jump utilizing the WPS identified as 1-12-1, Rev. 2 (1.12) which was also utilized by the QC inspector, Steve Jensen, to monitor and verify the welding parameters.

B). OBG W12/W13
Deck Access Hole(DAH), QA Verification
Lifting Lug Holes (LLH), QA Verification
FW Spencer, QA Verification (Piping System)
QAI: Joselito Lizardo

1). The QAI, Joselito Lizardo, was assigned to this designated work station to observe the Complete Joint Penetration (CJP) welding, the QC inspection and other related field work of the splice identified as 12W-13W-F. The welding was performed by Fred Kaddu ID-2188 utilizing the Shielded Metal Arc Welding (SMAW) process identified as ABF-WPS-D15-1040B-1, Rev.1. The QC inspector William Sherwood was observed performing the inspection and verifying the welding parameters utilizing the WPS as a reference. No issues were noted by the QC inspector. The welding was perfomed at this work station was not completed during this shift on this date

2). The QAI also performed a Visual Test (VT) and a Magnetic Particle Test (MPT) of the DAH identified as 8E-PP 70.5-E5-NE to verify the weld, QC inspection and testing meet the requirements of the contract specifications. No rejectable discontinutities were noted by the QAI.

3). The QAI observed the CJP welding of the lifting lug holes located on the east Orthotropic Box Girders (OBG) and identified as WN: 10E-PP92-E4-W1 and W3. The welding was performed by Mike Jiminez ID-4671 utilizing the WPS identified as n (WPS) ABF-WPS-D15-1110A, Rev. 1. The QAI also observed the QC inspector perform the visual inspection and verify the welding parameters during the production welding utilizing the WPS as a reference. The inspection performed by the QC inspector, Jesse Cayabyab, appeared to comply with the contract specifications. The welding of the lifting lug holes was completed during this scheduled shift.

4). This QALI was contacted by FW Spencer Field Supervisor, Tom Colombo, via cell phone conversation to schedule QA verification for the fillet welding of two (2) pipe supports for the 2.5 pipe utility water system identified as 111017-01 and 111017-02. This QALI contacted QAI Joselito Lizardo to inform him of this request and to include this task to the his daily work schedule.

C). OBG 12E/13E
QAI: Craig Hager

1). The QAI, Craig Hager, was assigned to this designated work station to observe the continued Complete Joint Penetration (CJP) welding and the QC inspection of the field splice identified as 12E-13E-E1. The welding was perfomed by Wai Kitlai ID-2953 utilizing the Flux Cored Arc Welding w/gas (FCAW-G) process as per the Welding Procedure Specification (WPS) ABF-WPS-D15-3042A-1, Rev. 0.

2).The QAI also observed the continued Complete Joint Penetration (CJP) groove welding of the field splice identified as 12E-13E-E2. The welding was performed by James Zhen ID-6001 Xiao Jian Wan ID-9677 and Jin Pei Wang ID-7299 utilizing the Flux Cored Arc Welding w/gas (FCAW-G) as per the Welding Procedure Specification (WPS) ABF-WPS-D15-3042A-1, Rev. 0.

3). The QAI also observed the continued Complete Joint Penetration (CJP) groove welding of the field splice identified as 12E-13E-F. The welding was performed by Jorge Lopez ID- utilizing the Flux Cored Arc Welding

w/gas (FCAW-G) as per the Welding Procedure Specification (WPS) ABF-WPS-D15-3040B-3, Rev. 0. The CJP welding of this edge plate field splice was completed during this shift and Mr. Lopez commence the profile grinding.

QA Lead Inspector (QALI) Summary

Later in the shift, this QA Lead Inspector (QALI) also observed the QAI's, Joselito Lizardo, Doug Frey and Craig Hager monitor the work performed by the QC inspectors at random intervals and also observed the QA Inspectors verify the welding parameters, the minimum preheat and the maximum interpass temperatures. The QAI's utilized a Fluke 337 clamp meter to measure the electrical welding parameters, Tempil Heat Indicators and/or a Fluke 63 IR Thermometer for verifying the preheat and interpass temperatures. At the conclusion of the shift this QA Lead Inspector discussed and reviewed the work performed by the QAI's in regards to the various observations and the verifications of the WPS's, consumables, welding parameters, preheat and interpass temperatures as described above. The QAI observations of the QC inspection and verification of the welding parameters performed on this date appeared to comply with the contract specifications with no issues noted on this date except as noted by Mr. Frey regarding item A, paragraph 3, 12W-13W-C2. This QALI informed and discussed this issue with QC Lead Inspector, Bonifacio Daquinag, Jr. In conclusion, it was agreed that the dimensions would be documented on the QC inspector's report and submitted to document control personnel, William Norris, and documented on a planar misalignment map for verification of the welding of a 2.5 to 1 transition slope at these areas at the completion of the CJP welding. AB/F personnel exhausted all means to correct the planar misalignment. The welding performed at the various work areas were not completed during this shift except as noted above.

This report was generated upon the discussions with the QA Inspectors, random visual observations and review of the QA field reports.

Review of QA Tracking Plan

This QA Inspector continued the daily review of field inspection reports and update of the field document control tracking records regarding the Orthotropic Box Girders (OBG, Longitudinal and Transverse "A" Deck Stiffeners, Deck Access Holes and the Tower Shear plates. The QAI also updated the tracking records for the pipe welds and the pipe supports.

On this date the QAI commence the review of QA tracking documents for the OBG's identified as E3, E4 and E5.

The the digital photographs on page 4 of this report illustrate some of the activities observed during this shift.

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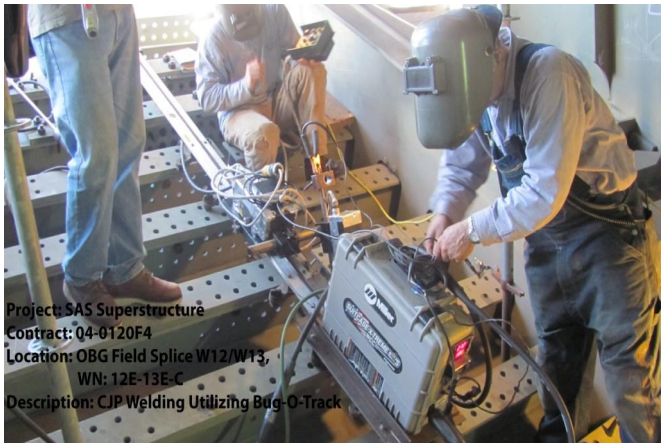

Summary of Conversations:

There were general conversations with Quality Control Lead Inspector, Bonifacio Daquinag, Jr., at the start of the shift regarding the location of welding, inspection personnel scheduled for this shift.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy 510-385-5910, who represents the Office of Structural Materials for your project.

Inspected By:	Reyes,Danny	Quality Assurance Inspector
Reviewed By:	Levell,Bill	QA Reviewer